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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/686,363	10/14/2003	Joseph Tak Ming Kwok	A-76718/DNM	6709
34299	7590	12/15/2005	EXAMINER	
LAW OFFICES OF DONALD N. MACINTOSH 180 MONTGOMERY, STE. 600 SAN FRANCISCO, CA 94104			NGUYEN, THANH NHAN P	
			ART UNIT	PAPER NUMBER
			2871	

DATE MAILED: 12/15/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

Application No.

10/686,363

Applicant(s)

KWOK, JOSEPH TAK MING

Examiner

(Nancy) Thanh-Nhan P. Nguyen

Art Unit

2871

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 14 September 2005.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-6 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-6 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 14 October 2003 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- ☒ Notice of References Cited (PTO-892)
- ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_\_.
- ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_.
- ☐ Notice of Informal Patent Application (PTO-152)
- ☐ Other: \_\_\_\_\_.

## DETAILED ACTION

1. This communication is responsive to Amendment dated 9/14/2005.
2. Claims 1-6 are pending for examination.

### **Claim Rejections - 35 USC § 102**

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) The invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

**Claims 1, 4 & 6 are rejected under 35 U.S.C. 102(b) as being anticipated by Arikawa et al U.S. Patent No. 6,147,934.**

**Regarding claim 1,** Arikawa et al discloses in figure 1, in a liquid crystal display apparatus having a liquid crystal assembly including liquid crystal material (L) sandwiched between a pair of transparent plates (13a, 13b) which carry patterned electrodes (not shown) which provide the desired liquid crystal display, the display apparatus further including front (11) and rear polarizing layers (12) having transmission axes aligned or rotated with respect to each other and further including a reflector (18a) for reflecting ambient incident light on said front layer back through said rear polarizing layer and said liquid crystal assembly and said front polarizing layer to a viewer the improvement comprising; a layer (not shown) including fluorescent material [see col. 5, lines 10-16] between said rear polarizing layer and said reflector (18a) responsive to said ambient incident light to emit a specific wavelength to provide a specific color for said display.

**Regarding claim 4**, limitation “fluorescent layer is printed on said reflector” makes the claim become product-by-process claim, [see MPEP 2113], and at the moment, it is not given any weight to its process; it is examined as a product itself as “fluorescent layer is on reflector”, and therefore it is met the rejection as in claim 1.

**Regarding claim 6**, Arikawa et al discloses in figure 1, where said rear polarizing layer (12) is a reflective polarizer film.

**Claim Rejections - 35 USC § 103**

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

**Claim 2 is rejected under 35 U.S.C. 103(a) as being unpatentable over Arikawa et al in view of Flynn U.S. Patent No. 5,815,228.**

**Regarding claim 2**, even though Arikawa et al lacks disclosure of fluorescent layer also includes phosphorescent material, it was well known in the art to use phosphorescent material for emitting light at a predetermined intensity and frequency for a predetermined period after the light source is off, as evidenced by Flynn, [see col. 5, lines 24-27]. Therefore, at the time the invention was made, it would have been obvious to a person of ordinary skill in the art to have fluorescent layer also includes phosphorescent material for emitting light at a predetermined intensity and frequency for a predetermined period after the light source is off.

**Claim 3 is rejected under 35 U.S.C. 103(a) as being unpatentable over Arikawa et al in view of Noble U.S. Patent No. 4,521,775.**

**Regarding claim 3**, Arikawa et al lacks disclosure of in a display apparatus as in claim 1 including a multiplexing driver for driving said patterned electrodes with a duty cycle of at least 1/2.

Noble discloses the multiplexing driver for driving patterned electrodes with a duty cycle of at least  $\frac{1}{2}$  for the benefit of maintaining reliability while obtaining satisfactory contrast ratios, [see col. 1, lines 37-42]. Therefore, at the time the invention was made, it would have been obvious to a person of ordinary skill in the art to use multiplexing driver for driving patterned electrodes with a duty cycle of at least  $\frac{1}{2}$  for the benefit of maintaining reliability while obtaining satisfactory contrast ratios.

**Claim 5 is rejected under 35 U.S.C. 103(a) as being unpatentable over Arikawa et al in view of Ouderkirk et al U.S. Patent No. 6,124,971.**

**Regarding claim 5**, Arikawa et al lacks disclosure of the reflector composed of translucent material.

It was well known that the reflector composed of translucent material would function as a transflective optical layer (or transflector) to utilize the ambient light (in reflective mode) or backlight (in transmissive mode) for the benefit of increasing efficiency and brightness in liquid crystal display device, as evidenced by Ouderkirk, [see abstract]. Therefore, at the time the invention was made, it would have been obvious to a person of ordinary skill in the art to have the reflector composed of

translucent material for the benefit of increasing efficiency and brightness under both ambient and supplemental lighting conditions in visual display applications.

**Response to Arguments**

Applicant's arguments filed 9/14/2005, with respect to the rejection(s) of claim(s) 1 under 35 U.S.C 103(a) have been fully considered and are persuasive. Therefore, the rejection has been withdrawn. However, upon further consideration, a new ground(s) of rejection is made in view of Arikawa et al U.S. Patent No. 6,147,934.

**Conclusion**

Any inquiry concerning this communication or earlier communications from the examiner should be directed to (Nancy) Thanh-Nhan P. Nguyen whose telephone number is 571-272-1673. The examiner can normally be reached on M-F/9-5:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Robert Kim can be reached on 571-272-2293. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

(Nancy) Thanh-Nhan P Nguyen  
Examiner  
Art Unit 2871

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-- December 7, 2005 --

TN

  
ANDREW SCHECHTER  
PRIMARY EXAMINER